

# Android GPS

Key strategic decisions around  
Open Source



2/10/12  
N  
- Android  
- Linux

July 26, 2005

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- (F): Embedded Linux  
- Open-source w/ rider  
ensuring survival &  
compatibility of  
& services  
- Chris



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Oracle America, Inc. v. Google Inc.  
3:10-cv-03561-WHA

GOOGLE-00-00001772

EXHIBIT 1-4

GOOGLE-00-00001773

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## Agenda

- Status Update
- What is Android?
- Near-term strategic decisions
  - Which type of Open Source are we?
  - How do we interact with OSS community?
  - How do we Open Source our JVM?

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## **Status: Hide the food, Android is here**

- **Where:** Building 41, second floor
- **Group meeting:** Presented to wireless team. Making contacts and working well as a group
- **Development status:** Perforce server installed. Engineers are coding again.
- **Strategy:** Working with Deep, Nikesh and others to help define Android strategy going forward.
- **GPS:** Full-fledged GPS at a future date.
- **Demo:** Available upon request.

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# What is Android?

Project Android is building the world's first  
Open Source handset solution with built-in  
Google applications

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## The Model

Google works closely with Carriers and OEMs to help incorporate its Open Source OS into handset designs.

- The Carriers benefit from the ability to quickly deploy differentiating features and applications.
- The OEMs benefit from the above, and a dramatic reduction in BOM costs by utilizing a robust, free consumer OS platform.
- Google benefits by having more control of the user experience and built-in Google apps.

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## Why Open Source\*

To disrupt the closed and proprietary nature of the two dominant industry players: MSFT and Symbian

To provide Carriers and OEMs a non-threatening solution for cross-vendor compatibility

To eventually build a community force around Google handset APIs and applications

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\* Our OSS license is a rider on a mainstream license such as Mozilla that requires licensee to maintain compatibility with Google APIs

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## Which OSS Model?

- Build product

A strategy where development happens internally, and once product has reached a certain level of stability it is released as open source.

- Community effort

A strategy where development is a collaborative effort between internal Google resources and a larger more diverse community of external Open Source developers. Typically there is a publicly accessible source code repository with a informal check-in procedure.

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# JAVA

- Why Java?
  - Carriers require it
  - MSFT will never do it
  - Elegant tools story
  - Safe sandbox for 3rd party developers
  - Existing pool of developers and applications
  - Who pays? OEM pays sun a license, typically < .30 in volume

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# JAVA

- Java + Javascript/XML = Key differentiator

## Current scenario:

- Developing a clean-room implementation of a JVM
- Need coffee-cup logo for carrier certifications
- Must take license from Sun
- Cost isn't the issue, open source JVM is the issue

## Proposal:

- Google/Android, with support from Tim Lindholm, negotiates the first OSS J2ME JVM license with Sun
- Outcome could reinforce our JVM development, or perhaps result in us convincing Sun to Open Source their JVM implementation.

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**End.**

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